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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/099,946	03/19/2002	Kyung-geun Lee	1293.1320	6311
49455	7590	04/03/2006	EXAMINER	
STEIN, MCEWEN & BUI, LLP 1400 EYE STREET, NW SUITE 300 WASHINGTON, DC 20005			GIESY, ADAM	
			ART UNIT	PAPER NUMBER
			2627	

DATE MAILED: 04/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/099,946	Applicant(s) LEE ET AL.	
	Examiner Adam R. Giesy	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 46-71 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 46-71 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 19 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/17/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 71 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Examiner asserts that it is physically impossible to produce an optical disc with two recording layers wherein each recording layer has an opposite track spiral direction (as claimed in claim 71) wherein the disc further requires each recording layer to be in the same track spiral direction (as required by claim 70).

Appropriate action is required. Claim 71 will be examined as if it depended from claim 69 which requires no limitation that each layer have the same track spiral direction.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 46-71 are rejected under 35 U.S.C. 102(b) as being anticipated by Ito et al. (hereinafter Ito – US Pat. No. 5,881,032).

Regarding claim 46, Ito discloses an optical disc comprising: first and second recording layers on which data are recordable and/or reproducible, the first and second recording layers having opposite track spiral directions (see Figures 1A and 1B), wherein on the first and second recording layers, a physical address of smallest recording units increases or decreases together with an address of the smallest recording units recorded during recording on the disc (see Figure 1D – the quality of having the recorded address increase as the physical address increases is inherent to the figure, as the recording address would inherently increase in the direction of reproduction [from inner to outer radius], as would the physical address).

Regarding claim 47, Ito discloses all of the limitations of claim 46 as discussed in the claim 46 rejection above and further that the first recording layer the recording address and the physical address increase together from an inner radius of the disc to an outer radius of the disc; and on the second recording layer, the recording address and the physical address increase together from the outer radius of the disc to the inner radius of the disc (see Figure 3).

Regarding claim 48, Ito discloses an optical disc, comprising: first and second recording layers on which data are recordable and/or reproducible, the first and second recording layers having opposite track spiral directions (see Figures 1A and 1B), wherein on at least one the first and second recording layers, a physical address of smallest recording units and an address of the smallest recording units recorded during recording on the disc increase or decrease oppositely (see column 5, lines 23-32 – Ito

provides for the recorded address – or sector address provided to the sector - of either layer to increase or decrease as the physical address – sector - increases).

Regarding claim 49, Ito discloses all of the limitations of claim 48 as discussed in the claim 48 rejection above and further that on the first recording layer, the recording address increases as the physical address decreases from an inner radius of the disc to an outer radius of the disc; and on the second recording layer, the recording address increases as the physical address decreases from the outer radius of the disc to the inner radius of the disc (see column 5, lines 23-32 – Ito provides for the recorded address – or sector address provided to the sector - of either layer to increase or decrease as the physical address – sector - increases).

Regarding claim 50, Ito discloses an optical disc drive comprising: an optical disc comprising first and second recording layers on which data are recordable and/or reproducible, wherein on the first and second recording layers, a physical address of smallest recording units increases or decreases together with an address of the smallest recording units recorded during recording on the disc (see Figure 1D – the quality of having the recorded address increase as the physical address increases is inherent to the figure, as the recording address would inherently increase in the direction of reproduction [from inner to outer radius], as would the physical address); and a reader/writer which reads and/or writes data to/from the optical disc (see column 3, lines 49-60).

Regarding claim 51, Ito discloses all of the limitations of claim 50 as discussed in the claim 50 rejection above and further that the first recording layer, the recording

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address and the physical address increase or decrease from an inner radius of the disc to an outer radius of the disc (see Figure 3); and on the second recording layer, the recording address and the physical address increase or decrease from the outer radius of the disc to the inner radius of the disc (see Figure 3).

Regarding claim 52, Ito discloses all of the limitations of claim 51 as discussed in the claim 51 rejection above and further that the first and second recording layers have a same track spiral direction (see Figures 13A and 13B).

Regarding claim 52, Ito discloses all of the limitations of claim 51 as discussed in the claim 51 rejection above and further that the first and second recording layers have an opposite track spiral direction (see Figures 1A and 1B).

Regarding claim 54, Ito discloses an optical disc drive, comprising: an optical disc comprising first and second recording layers on which data are recordable and/or reproducible, wherein on at least one of the first and second recording layers, a physical address of smallest recording units and an address of the smallest recording units recorded during recording on the disc increase or decrease oppositely (the quality of having the recorded address increase as the physical address decreases is inherent, as the recording address would inherently increase in the direction of reproduction [from inner to outer radius of vice versa] dependent upon the direction of reproduction. The physical address would behave in the same way); and a reader/writer which reads and/or writes data to/from the disc (see column 3, lines 49-60).

Regarding claim 55, Ito discloses all of the limitations of claim 54 as discussed in the claim 54 rejection above and further that the first recording layer, the recording

address decreases as the physical address increases from an inner radius of the disc to an outer radius of the disc; and on the second recording layer, the recording address decreases as the physical address increases from the outer radius of the disc to the inner radius of the disc (see column 5, lines 23-32 – Ito provides for the recorded address – or sector address provided to the sector - of either layer to increase or decrease as the physical address – sector - increases).

Regarding claim 56, Ito discloses all of the limitations of claim 55 as discussed in the claim 55 rejection above and further that the first and second recording layers have a same track spiral direction (see Figures 13A and 13B).

Regarding claim 57, Ito discloses all of the limitations of claim 55 as discussed in the claim 55 rejection above and further that the first and second recording layers have an opposite track spiral direction (see Figures 1A and 1B).

Regarding claim 58, Ito discloses all of the limitations of claim 54 as discussed in the claim 54 rejection above and further that the first recording layer, the recording address increases as the physical address decreases from an inner radius of the disc to an outer radius of the disc; and on the second recording layer, the recording address increases as the physical address decreases from the outer radius of the disc to the inner radius of the disc (see column 5, lines 23-32 – Ito provides for the recorded address – or sector address provided to the sector - of either layer to increase or decrease as the physical address – sector - increases).

Regarding claim 59, Ito discloses all of the limitations of claim 58 as discussed in the claim 58 rejection above and further that the first and second recording layers have a same track spiral direction (see Figures 13A and 13B).

Regarding claim 60, Ito discloses all of the limitations of claim 58 as discussed in the claim 58 rejection above and further that the first and second recording layers have an opposite track spiral direction (see Figures 1A and 1B).

Regarding claim 61, Ito discloses a method of assigning addresses of smallest recording units recorded during recording on an optical disc having first and second recording layers, the method comprising: assigning the recording address so that the recording address increases or decreases together with a physical address during recording on the disc (see column 5, lines 23-32 – Ito provides for the recorded address – or sector address provided to the sector - of either layer to increase or decrease as the physical address – sector - increases).

Regarding claim 62, Ito discloses all of the limitations of claim 61 as discussed in the claim 61 rejection above and further that assigning the recording address on the first recording layer so that the recording address and the physical address increase or decrease from an inner radius of the disc to an outer radius of the disc; and assigning the recording address on the second recording layer so that the recording address and the physical address increase or decrease from the outer radius of the disc to the inner radius of the disc (see Figure 3).

Regarding claim 63, Ito discloses all of the limitations of claim 62 as discussed in the claim 62 rejection above and further that the first and second recording layers have a same track spiral direction (see Figures 13A and 13B).

Regarding claim 63, Ito discloses all of the limitations of claim 62 as discussed in the claim 62 rejection above and further that the first and second recording layers have an opposite track spiral direction (see Figures 1A and 1B).

Regarding claim 65, Ito discloses a method of assigning addresses of smallest recording units recorded during recording on an optical disc having first and second recording layers, the method comprising: assigning the recorded address so that on at least one of the first and second recording layers, the recorded address and the physical address increase or decrease oppositely (see column 5, lines 23-32 – Ito provides for the recorded address – or sector address provided to the sector - of either layer to increase or decrease as the physical address – sector - increases)..

Regarding claim 66, Ito discloses all of the limitations of claim 65 as discussed in the claim 65 rejection above and further that assigning the recording address on the first recording layer so that the recording address decreases as the physical address increases from an inner radius of the disc to an outer radius of the disc; and assigning the recording address on the second recording layer so that the recording address decreases as the physical address increases from the outer radius of the disc to the inner radius of the disc (see column 5, lines 23-32 – Ito provides for the recorded address – or sector address provided to the sector - of either layer to increase or decrease as the physical address – sector - increases)..

Regarding claim 67, Ito discloses all of the limitations of claim 66 as discussed in the claim 66 rejection above and further that the first and second recording layers have a same track spiral direction (see Figures 13A and 13B).

Regarding claim 68, Ito discloses all of the limitations of claim 55 as discussed in the claim 55 rejection above and further that the first and second recording layers have an opposite track spiral direction (see Figures 1A and 1B).

Regarding claim 69, Ito discloses all of the limitations of claim 65 as discussed in the claim 65 rejection above and further that assigning the recording address so that on the first recording layer the recording address increases as the physical address decreases from an inner radius of the disc to an outer radius of the disc (see Figure 1D – the quality of having the recorded address increase as the physical address increases is inherent to the figure, as the recording address would inherently increase in the direction of reproduction [from inner to outer radius], as would the physical address); and assigning the recording address on the second recording layer so that the recording address increases as the physical address decreases from the outer radius of the disc to the inner radius of the disc (see column 5, lines 23-32 – Ito provides for the recorded address – or sector address provided to the sector - of either layer to increase or decrease as the physical address – sector - increases).

Regarding claim 70, Ito discloses all of the limitations of claim 69 as discussed in the claim 69 rejection above and further that the first and second recording layers have a same track spiral direction (see Figures 13A and 13B).

Regarding claim 71, Ito discloses all of the limitations of claim 69 as discussed in the claim 69 rejection above and further that the first and second recording layers have an opposite track spiral direction (see Figures 1A and 1B).

Response to Arguments

5. Applicant's arguments with respect to claims 1-45 have been considered but are moot in view of the cancellation of claims 1-45 in the response filed on 1/10/2006.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam R. Giesy whose telephone number is (571) 272-7555. The examiner can normally be reached on 8:00am- 5:30pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (571) 272-7589. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ARG 3/28/2006

A handwritten signature in black ink, appearing to read "Adam R. Guin", with a long horizontal flourish extending to the right.A handwritten signature in black ink, appearing to read "William Korzuch", written in a cursive style.

WILLIAM KORZUCH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2000